



EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC

EC-Type Examination Certificate Number : **BAS00ATEX1259**

Equipment or Protective System: **SOUNDER TYPES DB5 AND DB51**

Manufacturer: **MEDC LIMITED**

Address: **Pinxton, Nottinghamshire, NG16 6JF**

This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report N°

00(C)0771 dated 22 January 2001

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + Amds 1 & 2 **EN 50020: 1994** **EN 50284: 1999**

except in respect of those requirements listed at item 18 of the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

The marking of the equipment or protective system shall include the following:-

Ex II 1 G **EEx ia IIC T4** **(-20°C < T_a < +55°C)**

This certificate may only be reproduced in its entirety and without any change, schedule included.

File No: **EECS 0676/02/014**

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



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I M CLEARE
DIRECTOR
1 March 2001



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Description of Equipment or Protective System

The Sounder Type DB5 and DB51 are designed to produce an audio signal.

The sounder comprises an electronic circuit on a printed circuit board and an inductive sounder device. The PCB is potted into a plastic enclosure which is mounted into a plastic base which forms a terminal enclosure.

Sounder Type DB5

$$U_i = 28V$$

$$I_i = 28mA$$

$$P_i = 0.81W$$

$$C_i = 0$$

$$L_i = 20mH + 1000 \text{ ohms } (L_i \text{ may be considered to be negligible i.e. } L_i = 0)$$

The DB5 sounder has an internal resistance R_i of 1000Ω which ensures that the input current limit I_i for inductive safety is not exceeded.

Sounder Type DB51

$$U_i = 15.7V$$

$$I_i = 37mA$$

$$P_i = 0.56W$$

$$C_i = 0$$

$$L_i = 20mH + 325 \text{ ohms}$$

$$L_i/R_i = 61.5\mu H/\Omega$$

The DB51 sounder has an internal resistance R_i , which may be used in conjunction with the source resistance, to ensure that the input current limit I_i for inductive safety, is not exceeded.

By virtue of its shape, design and position of use, it is assessed that the apparatus is not considered to be an electrostatic risk, however, the apparatus must not be installed in a position where it may be subjected to an excessive air flow that may cause an electrostatic build-up.

An optional end-of-line resistor may be connected across the input terminals

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Special Conditions For Safe Use

None



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18. Essential Health and Safety Requirements

ESSENTIAL HEALTH & SAFETY REQUIREMENTS not covered by standards listed in Section 9		
Clause	Subject	Compliance
1.1.3	Changes in characteristics of materials and combinations thereof	Report No 00(C)0771 Clause 6.1.1.3
1.2.2	Components for incorporation or replacement	Report No 00(C)0771 Clause 6.1.2.2
1.2.5	Additional means of protection	Report No 00(C)0771 Clause 6.1.2.5
1.2.7	Protection against other hazards	Report No 00(C)0771 Clause 6.1.2.7
1.4.2	Withstanding attack by aggressive substances	Report No 00(C)0771 Clause 6.1.4.2

19 DRAWINGS

Number	Sheet	Issue	Date	Description
187-193	1	A	17.11.00	General Assembly of DB5 Sounder
187-194	1	A	17.11.00	General Assembly of DB51 Sounder
187-180	1	A	29.08.00	Circuit Diagram DB5 new tones chip
187-184	1	A	04.12.00	Circuit Diagram DB51 new tones chip
131-178	1	A	29.08.00	'Fulleon' Transducer
187-182 SS	1	B	09.01.01	DB5 DC PCB Artwork
187-182 LO	1	B	09.01.01	DB5 DC PCB Artwork

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BASEEFA List Keywords
2ALARMS



1 **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

3 Supplementary EC-Type Examination Certificate Number: **BAS00ATEX1259/1**

4 Equipment or Protective System: **SOUNDER TYPES DB5 AND DB51**

5 Manufacturer: **MEDC LIMITED**

6 Address: **Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC-Type Examination Certificate No. BAS00ATEX1259 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

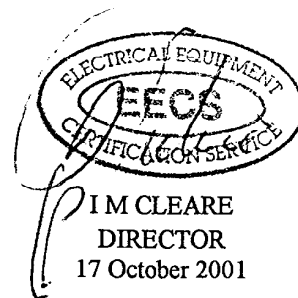
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Description of the Variation to the Equipment or Protective System

VARIATION 1.1

To permit the addition of a component and subsequent changes to the pcb, none of which affect the intrinsic safety assessment.

Report No.

None.

Special Conditions For Safe Use

None.

Essential Health and Safety Requirements

See original certificate.

DRAWINGS

Number	Sheet	Issue	Date	Description
187-180	1	B	06.08.01	Circuit Diagram DB5 new tones chip
187-184	1	B	06.08.01	Circuit Diagram DB51 new tones chip
187-182 SS	1	C	25.07.01	DB5 DC PCB Artwork
187-182 LO	1	C	25.07.01	DB5 DC PCB Artwork

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